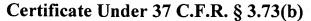
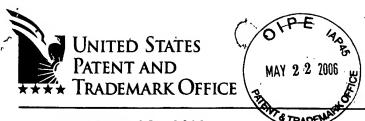


Signature: Oulu O Nol



Apr

Applicant(s): Harri HOLMA et al. Application No: 10/790,831 Filed: March 3, 2004 For: INTER-FREQUENCY MEASUREMENTS WITH MIMO TERMINALS **NOKIA CORPORATION** (Type of Assignee, e.g., corporation, partnership, university, government agency,etc.) states that it is: 1. \(\sum \) the assignee of the entire right, title, and interest; or 2. an assignee of less than the entire right, title and interest. The extent (by percentage) of its ownership interest is in the patent application identified above by virtue of either: A. [] An Assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame ____, or for which a copy thereof is attached. [or] B. [X] A chain of title from the inventor(s) of the patent application identified above to the current assignee as shown below: 1. From: Harri HOLMA To: Nokia Corporation The document was recorded in the Patent and Trademark Office at Reel <u>013059</u>, Frame <u>0162</u>, or for which a copy thereof is attached. 2. From: Antti TOSKALA To: Nokia Corporation The document was recorded in the Patent and Trademark Office at Reel <u>013059</u>, Frame <u>0162</u>, or for which a copy thereof is attached. Additional documents in the chain of title are listed on a supplemental sheet. [X] Copies of assignments or other documents in the chain of title are attached. To the best of the undersigned's knowledge and belief, title of the patent application identified above is in the assignee identified above. The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. Date: May 22, 2006 Name: _Arlene P. Neal Title: Attorney for Applicants (Reg. No. 43,828)



SEPTEMBER 06, 2002

ANTONELLI, TERRY, STOUT & KRAUS LLP DONALD E. STOUT 1300 NORTH SEVENTEENTH STREET **SUITE 1800** ARLINGTON, VA 22209

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RECORDATION DATE: 07/02/2002

REEL/FRAME: 013059/0162

NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HOLMA, HARRI

DOC DATE: 05/31/2002

ASSIGNOR:

TOSKALA, ANTTI

DOC DATE: 06/13/2002

ASSIGNEE:

NOKIA CORPORATION KEILALAHDENTIE 4

FIN-02150 ESPOO, FINLAND

SERIAL NUMBER: 10113690

FILING DATE: 04/02/2002

PATENT NUMBER:

ISSUE DATE:

TONYA LEE, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS



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OMB No. 0651-0027 (exp. 5/31/2002)

07-11-2002



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Reference: 017.41221X00

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| To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. | | | | |
|---|--|--|--|--|
| 1. Name of conveying party(ies): HOLMA, Harri TOSKALA, Antti | Name and address of receiving party(ies) | | | |
| Additional name(s) of conveying party(ies) attabled? ☐ Yes ☒ No | Name: Nokia Corporation | | | |
| 07/12/02 | Street Address: Keilalahdentie 4, FIN-02150 Espoo, Finland | | | |
| 3. Nature of conveyance: | | | | |
| | Additional name(s) & address(es) attached? ☐ Yes ☒ No | | | |
| Execution Date: May 31, June 13, 2002 | | | | |
| 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the A. Patent Application No.(s) 10/113,690 Filed April 2, 2002 | execution date of the application is: B. Patent Registration No.(s) | | | |
| | .] | | | |
| Additional number(s) atta | ached Li Yes 🖾 No | | | |
| Name and address of party to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved 1 | | | |
| Name: Antonelli, Terry, Stout & Kraus, LLP | 7. Total fee (37 CFR 3.41) \$40.00 | | | |
| 1-4 | Es Choosed | | | |
| Internal Address: | Authorized to be charged to deposit account | | | |
| 1300 North Seventeenth Street Sulte 1800 Arlington, VA 22209 | 8. Deposit account number: | | | |
| USA | 01-2135 | | | |
| City: State: Zip: | (Attach duplicate copy of this page if paying by deposit account) | | | |
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| 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. | | | | |
| Donald E. Stout, Reg# 26,422 07/02/2002 | | | | |
| Name of Person Signing Signature Date | | | | |
| Total number of pages including cover sheet, attachments, and document: 2 | | | | |
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017.41221X00 -NC 35432

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement relating to

| | INTER-FREQUENCY MEASUREMENTS WITH MIMO TERMINALS for which an application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date. | | | | |
|--|--|---|---|----------------------------------|--|
| | for which U.S. Application Serial No. 10/113,690 April 2, 2002 | | for Letters Patent was filed in the U.S. Patent and Trademark Office on | | |
| | for which an International Application was filed on | | as | , designating the United States. | |
| | Keilal | A CORPORATI Lahdentie 4 2150 Espoo, Finla | , | | |

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

reexaminations and extensions thereof.

NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all priority and/or convention rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

been made.

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Antonelli, Terry, Stout, Kraus, LLP the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document. IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR.

| 101 | FULL NAME OF SOLE OR FIRST NAMED INVENTOR | INVENTOR'S SIGNATURE | DATE |
|-----|---|----------------------|-----------|
| | Нагті НОСМА | Han Heen | 31.5.2002 |
| 202 | FULL NAME OF SECOND JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |
| | Antti TOSKALA | State Tolake | 13.6,2002 |
| 203 | FULL NAME OF THIRD JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |
| 204 | FULL NAME OF FOURTH JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |
| 205 | FULL NAME OF FIFTH JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |
| | | | |
| 206 | FULL NAME OF SIXTH JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |
| 207 | FULL NAME OF SEVENTH JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |
| | FULL NAME OF EIGHTH JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |